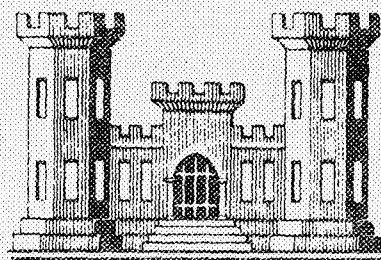


FILE COPY

FLOOD INSURANCE STUDY

SOUTH KINGSTOWN, RHODE ISLAND



PREPARED FOR

FEDERAL INSURANCE ADMINISTRATION

BY

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS.

SEPTEMBER 1971

PRELIMINARY

FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, RHODE ISLAND

Prepared for

FEDERAL INSURANCE ADMINISTRATION

By

DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASSACHUSETTS
SEPTEMBER 1971

SOUTH KINGSTOWN, RHODE ISLAND

FLOOD INSURANCE STUDY

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Tables

No.

Depth-Percent Damage Table

1

Plates

No.

Elevation-Frequency Curve-Reach No. 1

1

Elevation-Frequency Curve-Reach No. 2

2

Elevation-Frequency Curve-Reach No. 3

3

Elevation-Frequency Curve-Reach No. 4

4

Elevation-Frequency Curve-Reach No. 5

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Index, Flood Insurance Study Map

6

Flood Insurance Study Map

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SOUTH KINGSTOWN, RHODE ISLAND

FLOOD INSURANCE STUDY

1. Authority for Study. This study was prepared at the request of the Federal Insurance Administration, U. S. Department of Housing and Urban Development, under the authority of the National Flood Insurance Act, Public Law 90-448 dated August 1968 and subsequent criteria. The study provides data required for a Type 10 Study of the Town of South Kingstown, Rhode Island. Flood insurance rates for South Kingstown will be developed by the Federal Insurance Administration using data contained in this report. Authority for the New England Division to perform the study is contained in letter from the Office of the Chief of Engineers, ENGCW-PF, subject: Type 10 Flood Insurance Studies, dated 23 December 1970.
2. Financing of Study. This study was financed by the Federal Insurance Administration on a reimbursable basis with billing for work performed being made directly to the Federal Insurance Administration by the New England Division under Inter-Agency agreement (1AA-H-8-71).
3. Description of the Area. The Town of South Kingstown, Rhode Island is located about 30 miles south of Providence. It is bordered by the Atlantic Ocean on the south; by the towns of Charlestown and Richmond on the west; by the towns of Exeter and North Kingstown on the north; and by the town of Narragansett (across Point Judith Pond and Pettaquamscutt River) on the east. South Kingstown has an area of 63.5 square miles of which 57.4 is land and it has the largest area of all Rhode Island's cities and towns. The 1970 census was approximately 16,801 which is an increase of 40.7 percent over 1960, giving a density of 293 people per square mile. The large increase in population resulted from several factors, one being the increasing enrollment of the University of Rhode Island which is located in the village of Kingstown. The economy of the town is sustained by three major sources: summer resorts, several manufacturing plants, and the University of Rhode Island.

Flooding in South Kingstown is limited to that caused by storm induced tides along the ocean front in Point Judith Pond and on the Pettaquamscutt River. Residential properties are subject to flooding in all these areas. The value of properties throughout these areas vary from \$5,000 to \$35,000. The lesser values are concentrated in two areas, Carpenter's Beach and a section of Matunuck, located on the southern shore of South Kingstown.

These homes are strictly seasonal type structures. The remaining areas which are subject to heavy flooding have a valuation range of \$15,000 to \$35,000 of which a small percentage are summer residences.

4. Hydrology and Zones Involved. In connection with reports on Hurricane Tidal Flooding in Narragansett Bay and at Point Judith, Rhode Island, stage frequency relationships for tidal flooding for broad reaches of Narragansett Bay and Point Judith Pond were developed. Five reaches are located along the South Kingstown shorefronts including the Point Judith Pond area and Pettaquamscutt River. Each reach contains three zones: A, B and C. Zones A and B are subject to tidal flooding while Zone C comprises the rest of the town. The following data shows the relationship between reaches, zones and flood elevations within the five locations under study.

<u>Location</u>	<u>Reach</u>	100 yrs. Flood El. <u>MSL</u>	SPH Flood El. <u>MSL</u>	100 yrs. Zone Desig- <u>nation</u>	SPH Zone Desig- <u>nation</u>
Matunuck	1	12.5	16.0	A1	B1
Potter Pond Area	2	12.0	15.5	A2	B2
Snug Harbor at Pt. Judith Pond	3	10.0	13.4	A3	B3
Upper End of Pt. Judith Pond	4	11.5	14.7	A4	B4
Pettaquamscutt River	5	13.7	17.5	A5	B5

The stage-frequency curves used in determining the elevations are shown on Plates 1 through 5. For Reaches 1 through 5, the nearest and exact Flood Hazard Factors with plotting positions are shown in the following data.

<u>Reach</u>	<u>Exact FHF</u>	<u>Nearest FHF</u>	<u>Curve</u>		<u>10 yr.</u>	<u>25 yr.</u>	<u>100 yr.</u>	<u>500 yr.</u>
			<u>Upper</u>	<u>Lower</u>				
1	041	040	D	C, D, F, G, H	4.1	2.7	0	3.5
2	056	055	B, F	A, E	5.6	3.4	0	3.5
3	039	040	CorD	A, F	3.9	2.6	0	3.4
4	046	045	E	C, D, F G, H	4.6	3.1	0	3.2
5	046	045	C	C, D, F G, H	4.6	3.1	0	3.8

5. Type of Residence. The general types of housing in South Kingstown fall in two categories - year-round and seasonal. The year-round homes are mostly single family, wood frame with basements. The type of structures are capes, ranches, split levels and two story garrison and colonials. No one type seems to dominate in any one area. The summer homes which are mostly concentrated on the south shore vary greatly in design from two to twenty-room structures.

6. Structures and Contents Classification. Properties found in South Kingstown fall into two classes as follows:

Structures

Class

1B	Single story with basement
2B	Two story with basement

Contents

BF	Basement and first floor
BFS	Basement, first and second floor

7. Depth-percent Damage Data. Data developed for the Newport, R. I. study are applicable for the two story with basement structures and are shown in Table 1. Data are not available for the type of single-story with basement structures found.

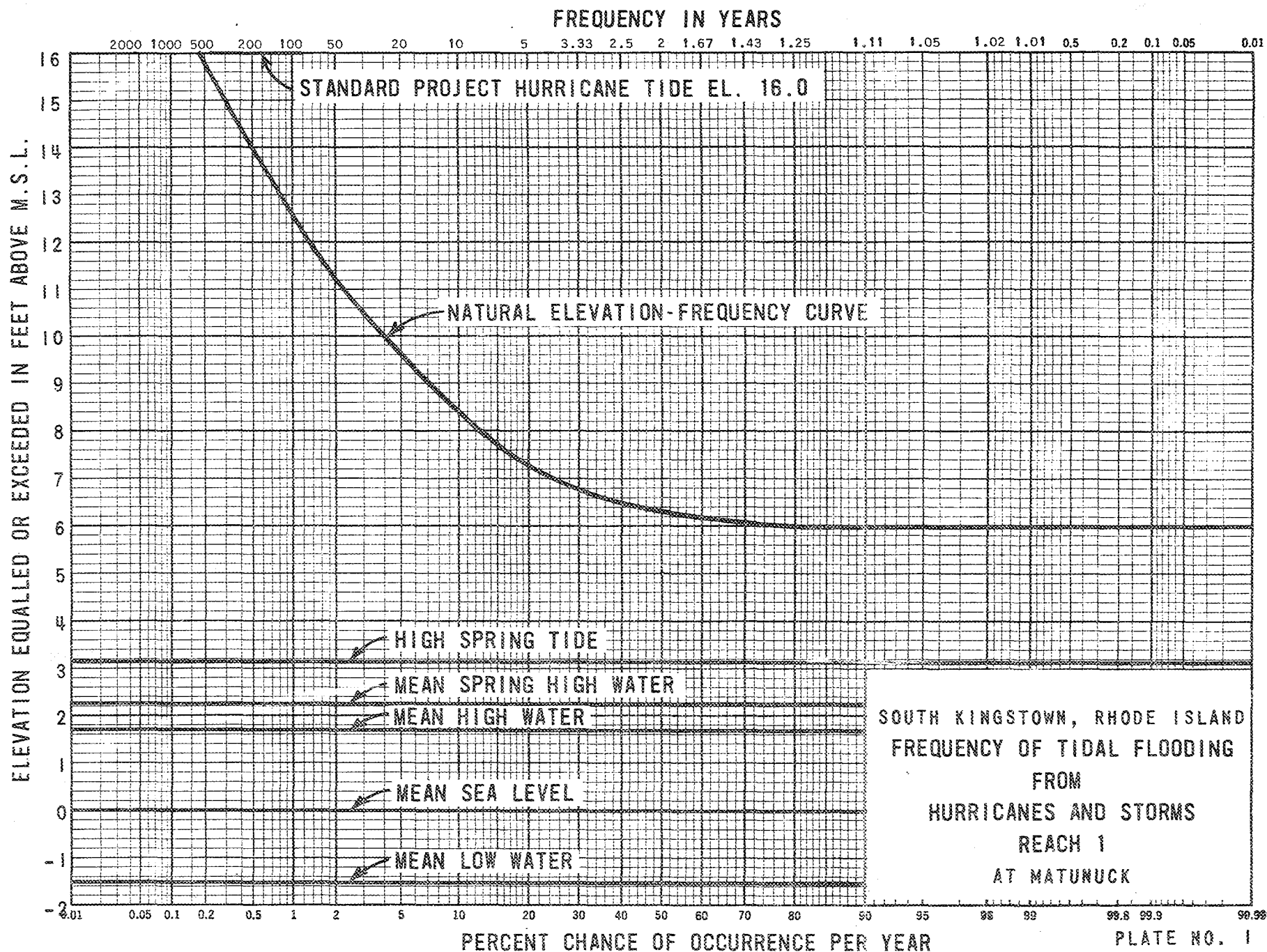
8. Map. Because of the topography of South Kingstown and the small vertical difference between the 100-year and SPH elevations (3.2 to 3.8 feet) the limits of Zones A and B frequently coincide throughout the five reaches. Therefore, flood insurance plates 7 through 14 were prepared in accordance with Option 2 of the November 1970 instructions for contents of a Type 10 Flood Insurance Study. Plate No. 6 is an index of the Flood Insurance Study Map.

SOUTH KINGSTOWN, RHODE ISLAND

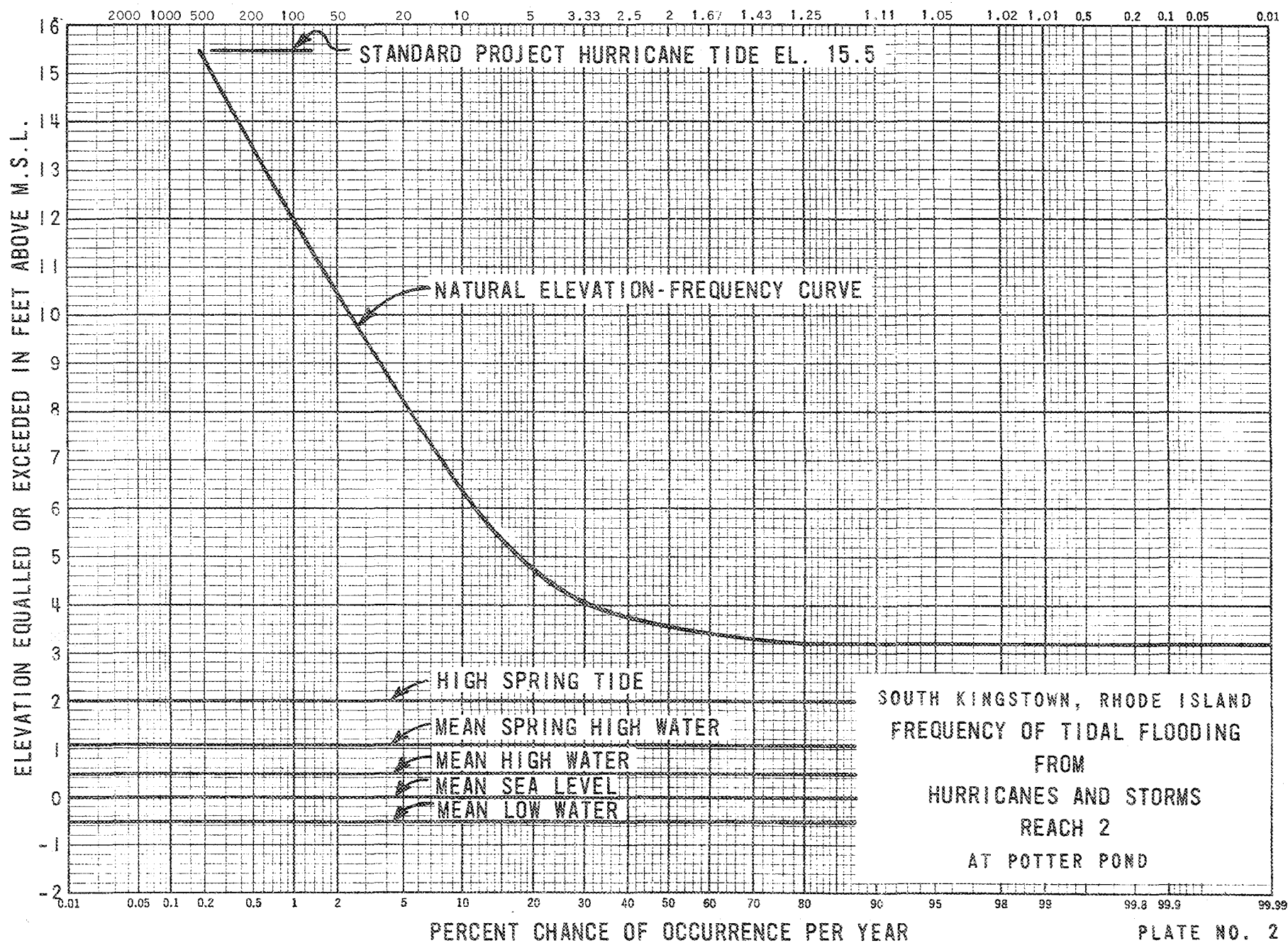
Depth -Percent Damage Table

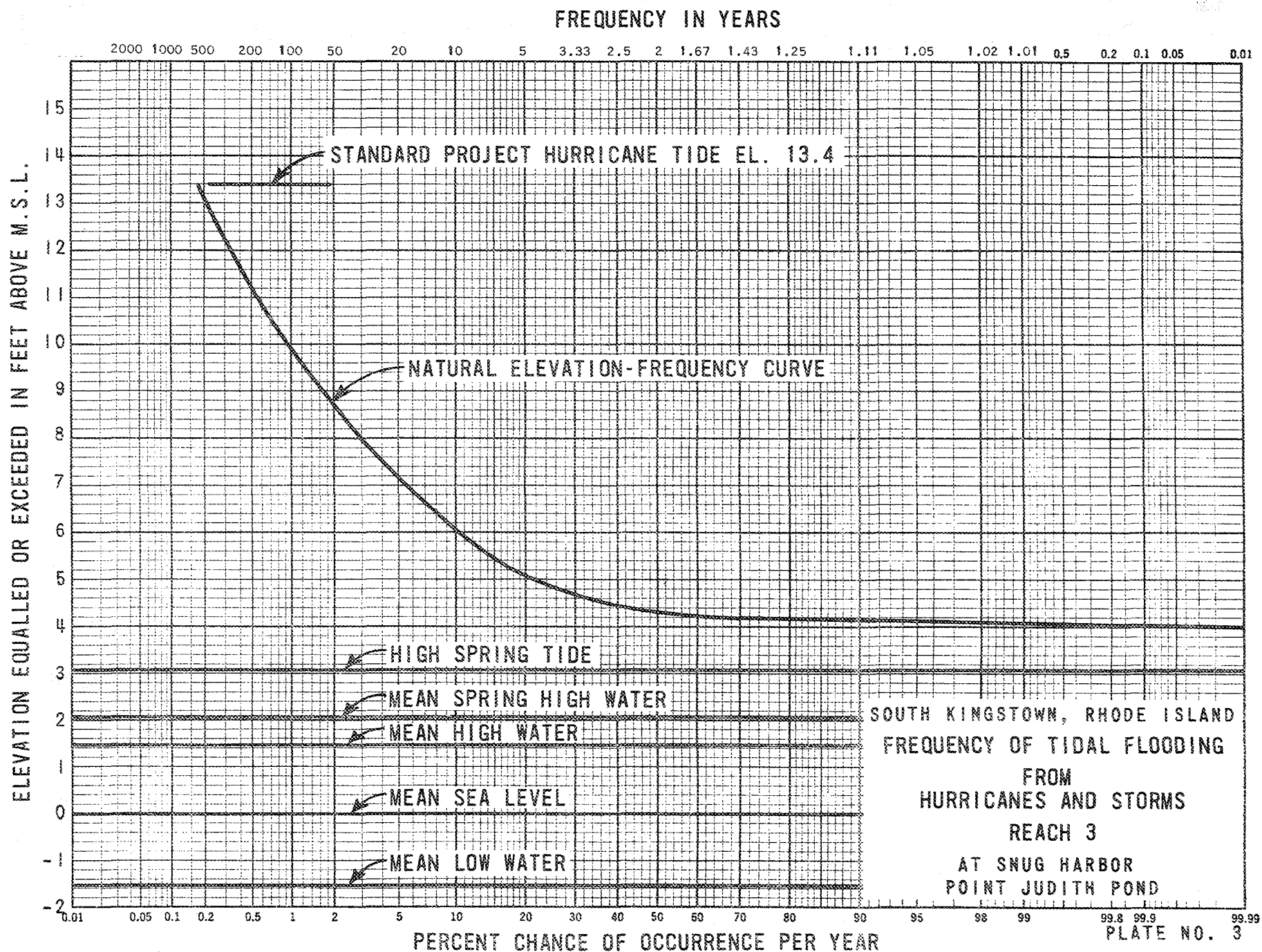
<u>Depth in feet from 1st Floor</u>	<u>Structure 2B</u>	<u>Contents BFS</u>
-8	0	0
-7	1.0	1.0
-6	1.0	2.0
-5	4.0	3.0
-4	8.0	8.0
-3	10.0	12.0
-2	11.0	13.0
-1	12.0	13.0
0	14.0	14.0
1	38.0	34.0
2	46.0	48.0
3	51.0	57.0
4	58.0	64.0
5	62.0	67.0
6	64.0	68.0
7	66.0	68.0
8	70.0	68.0

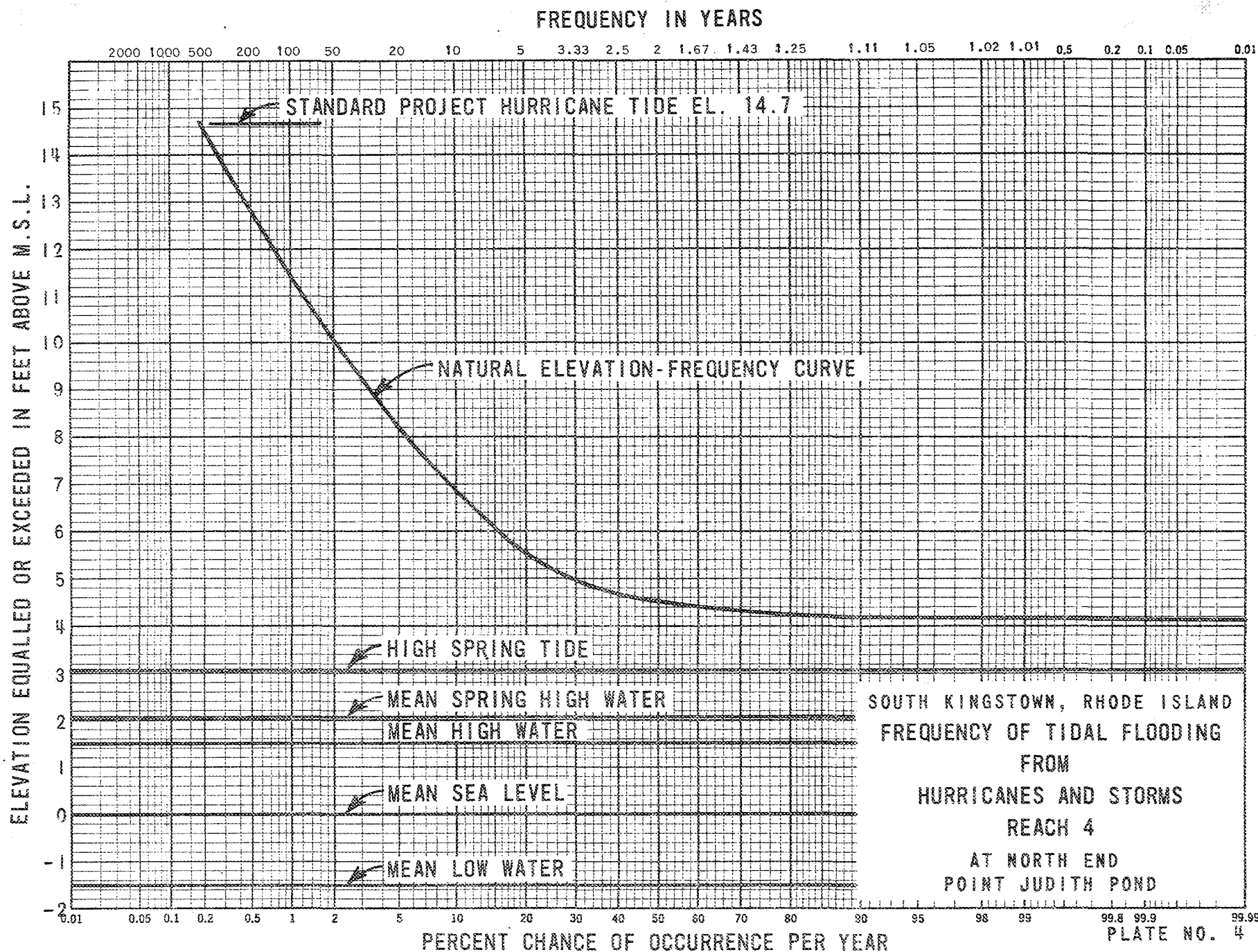
Table 1

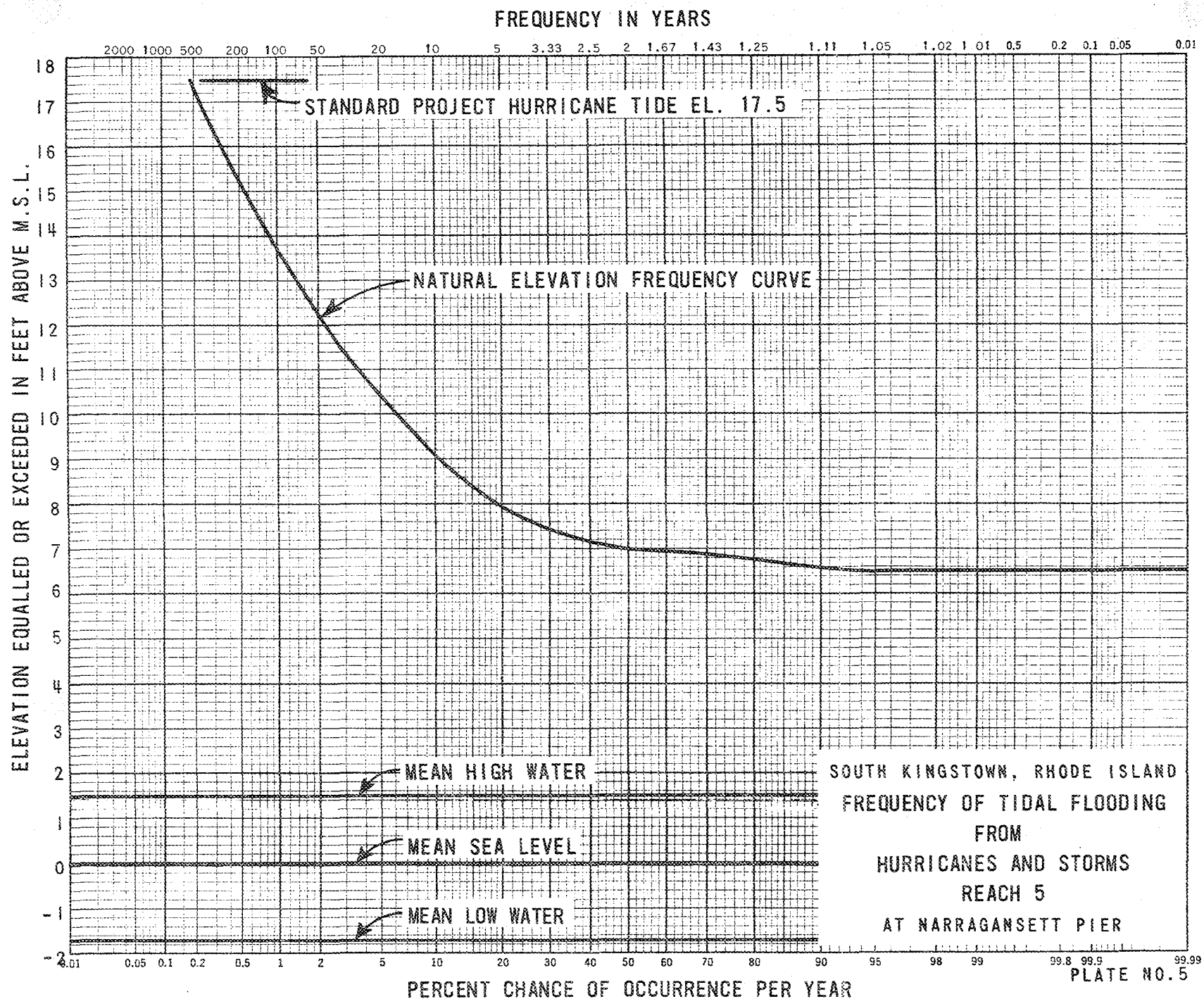


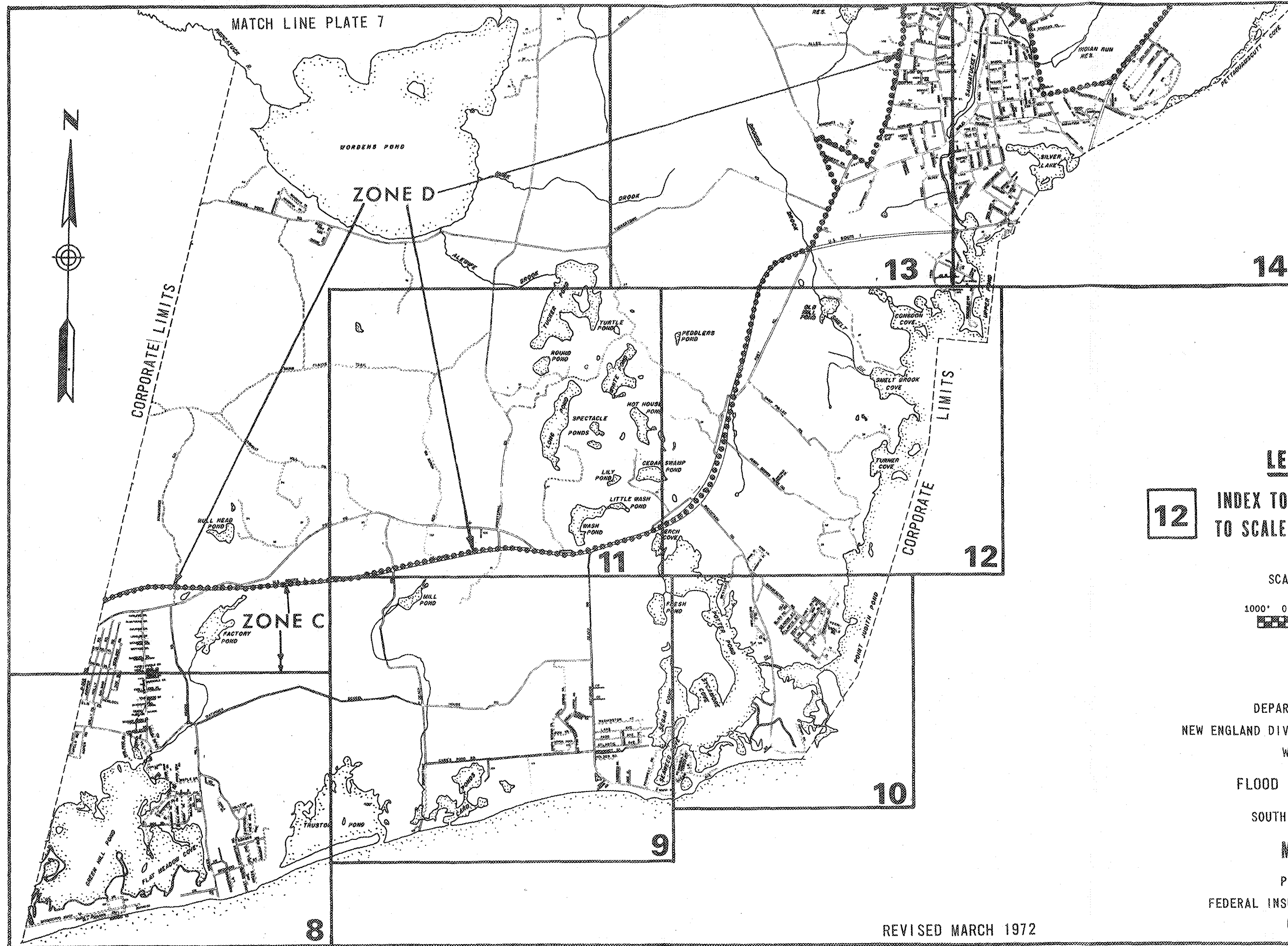
FREQUENCY IN YEARS











LEGEND:

12 INDEX TO SHEETS FURNISHED TO SCALE AS SHOWN

SCALE IN FEET



DEPARTMENT OF THE ARMY
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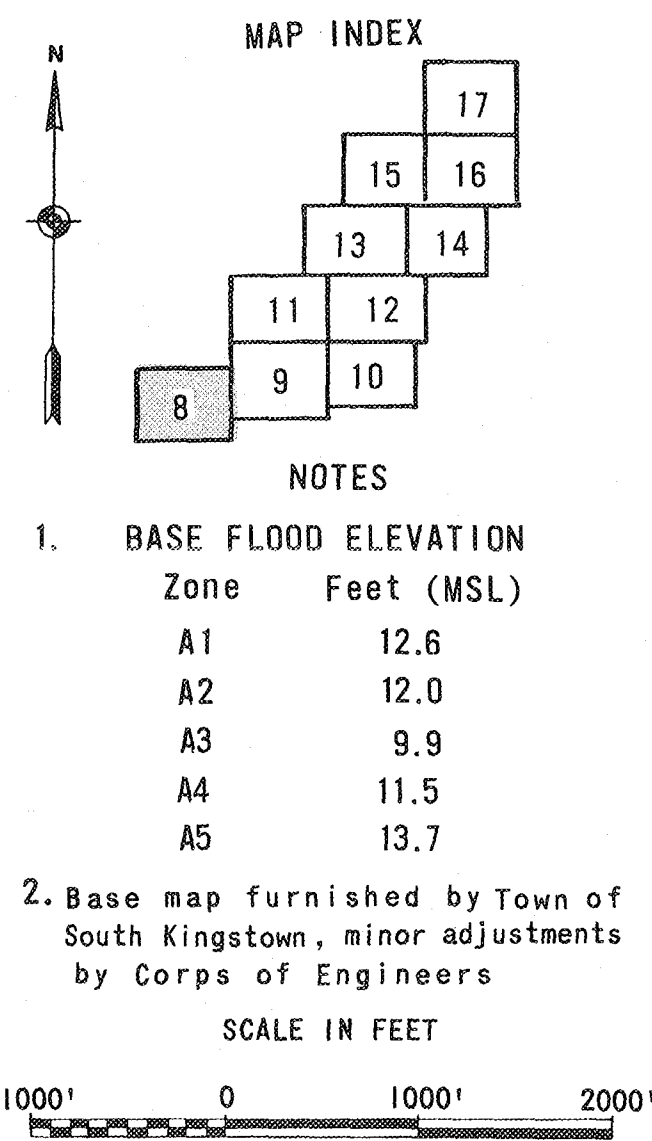
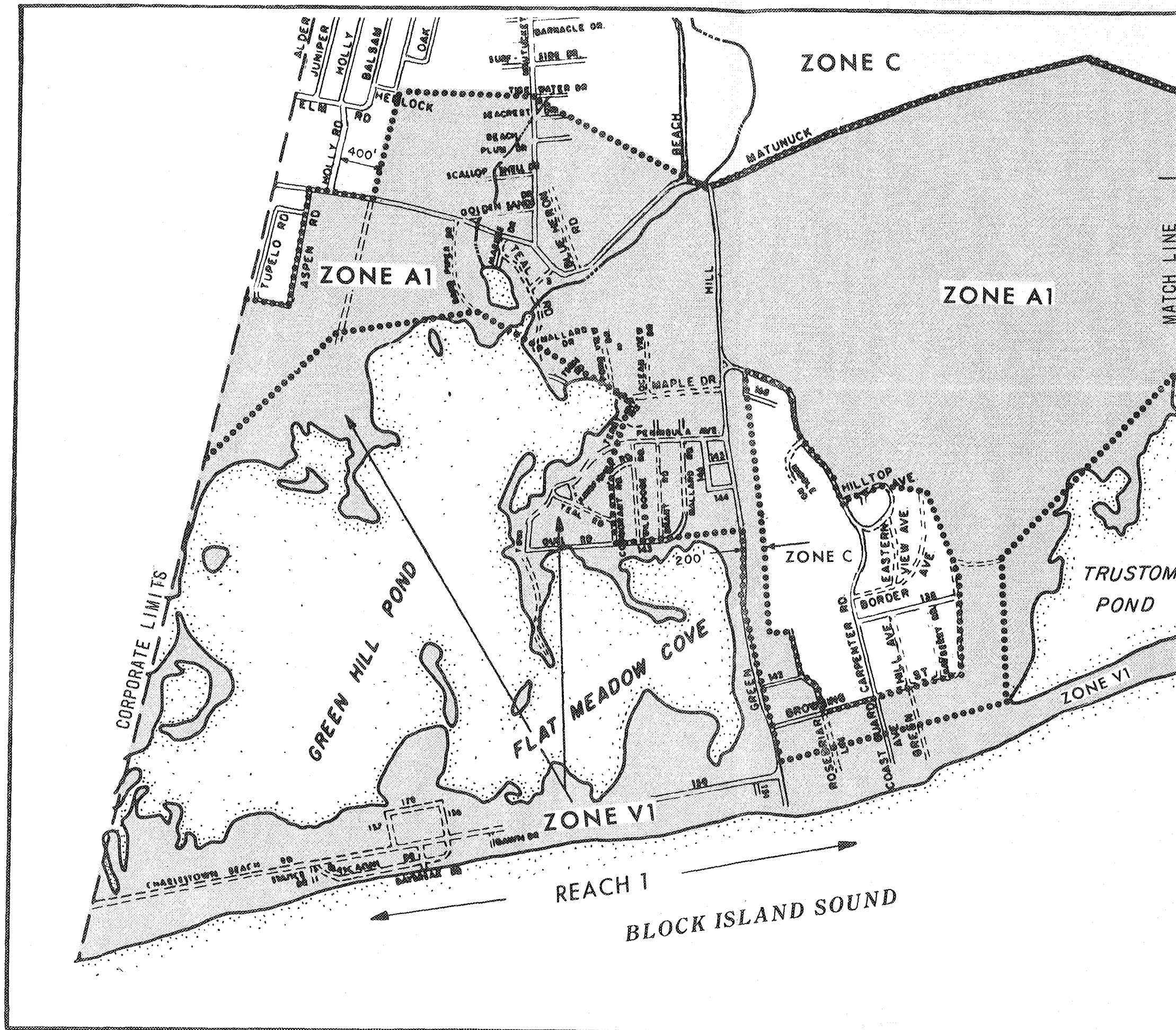
FLOOD INSURANCE STUDY

SOUTH KINGSTOWN, R.I.

MAP INDEX

PREPARED FOR
FEDERAL INSURANCE ADMINISTRATION
MARCH 1972

REVISED MARCH 1972



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7

2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET

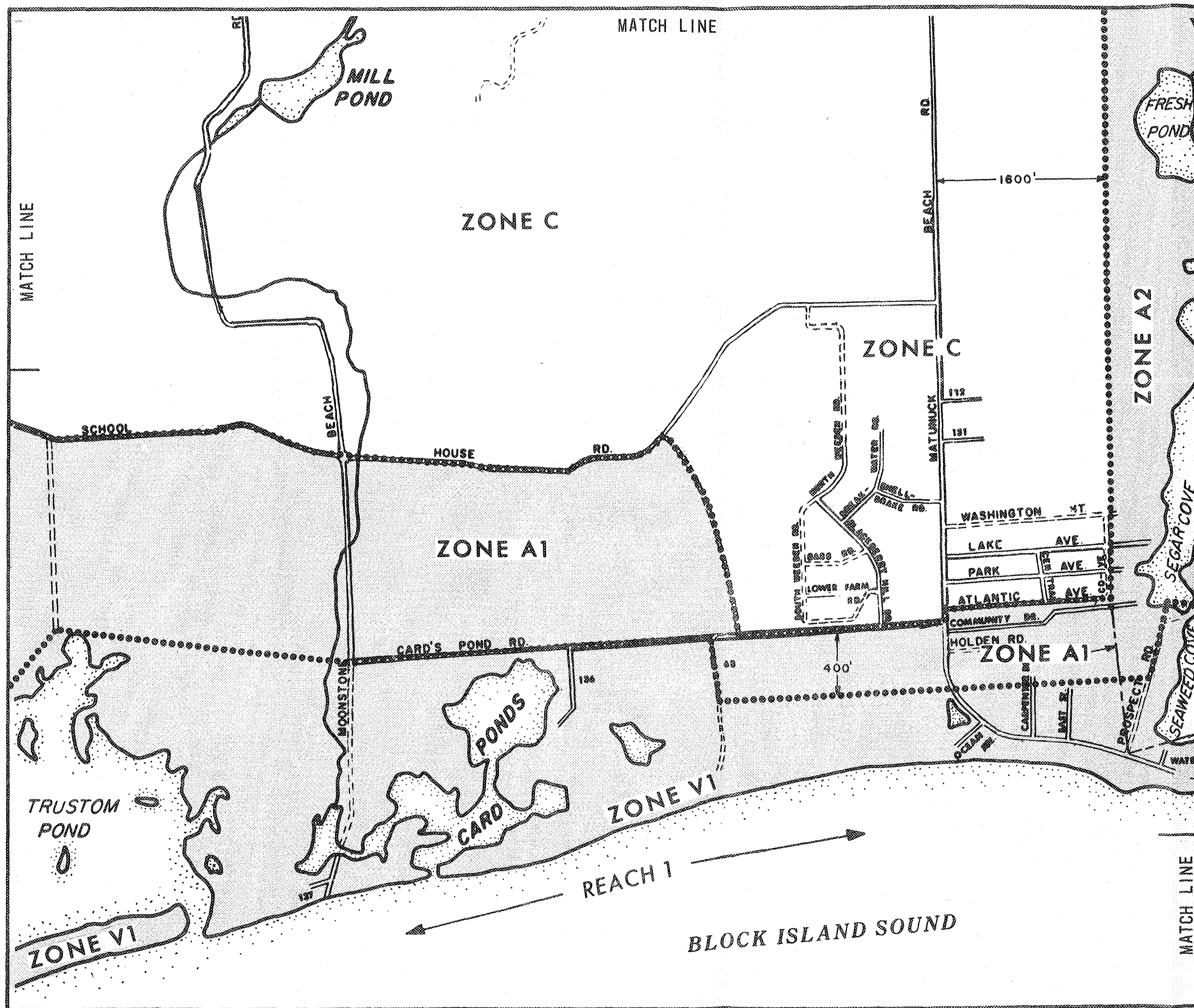
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DEPARTMENT OF THE ARMY
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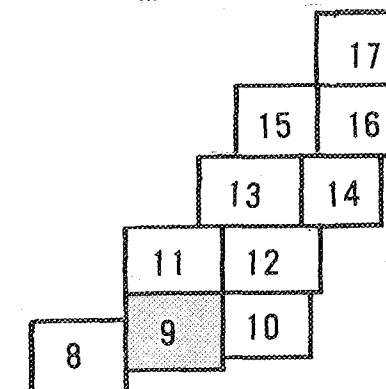
FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, R.I.

ZONE MAP

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MARCH 1972



MAP INDEX



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7

2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET



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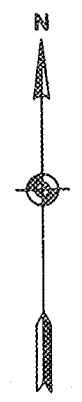
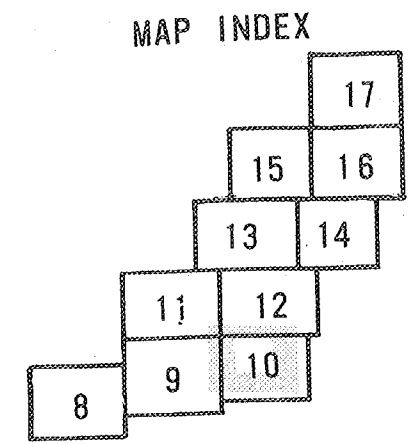
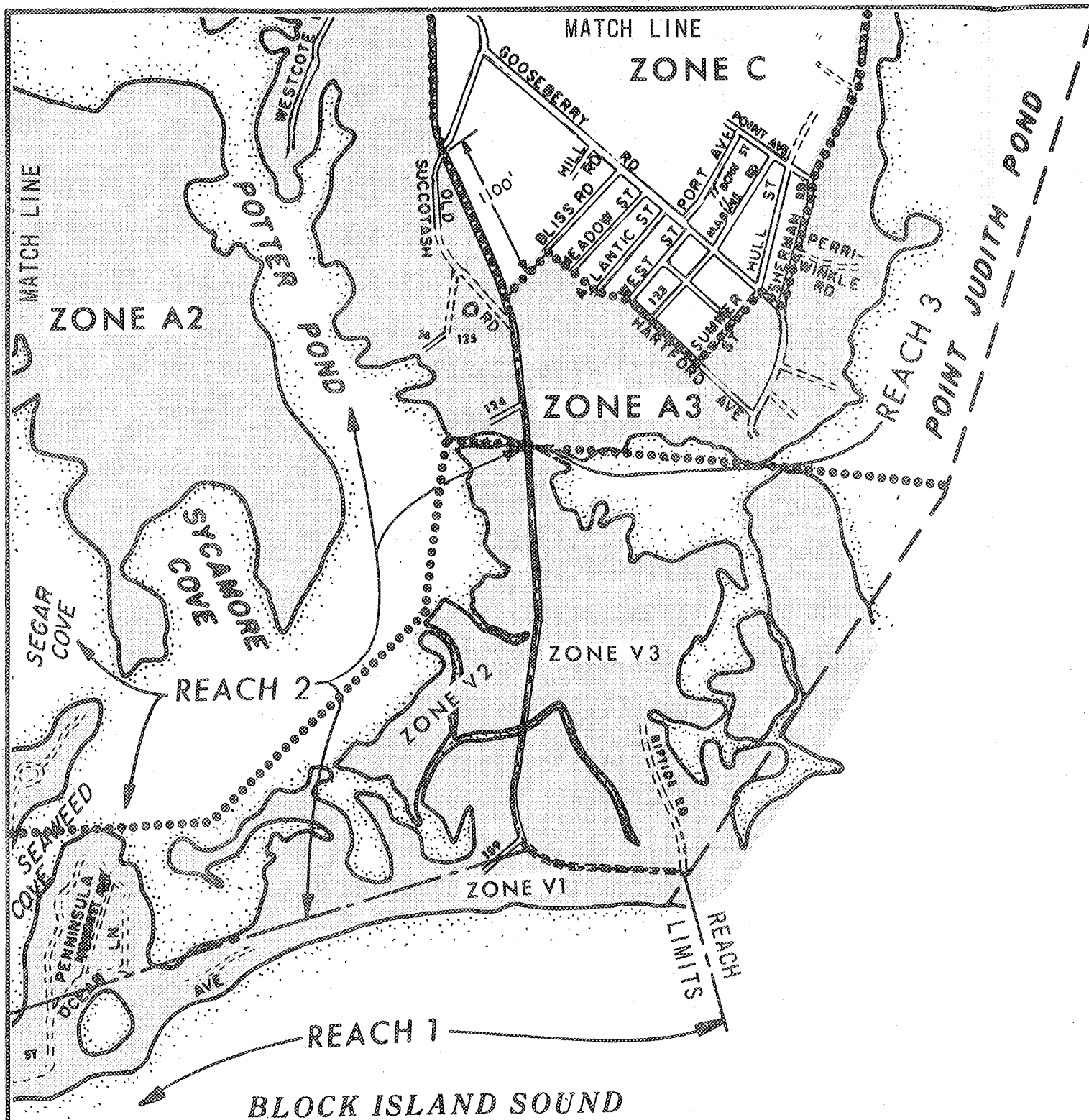
FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, R.I.

ZONE MAP

PREPARED FOR
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MARCH 1972

REVISED MARCH 1972

PLATE 9



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7
2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET

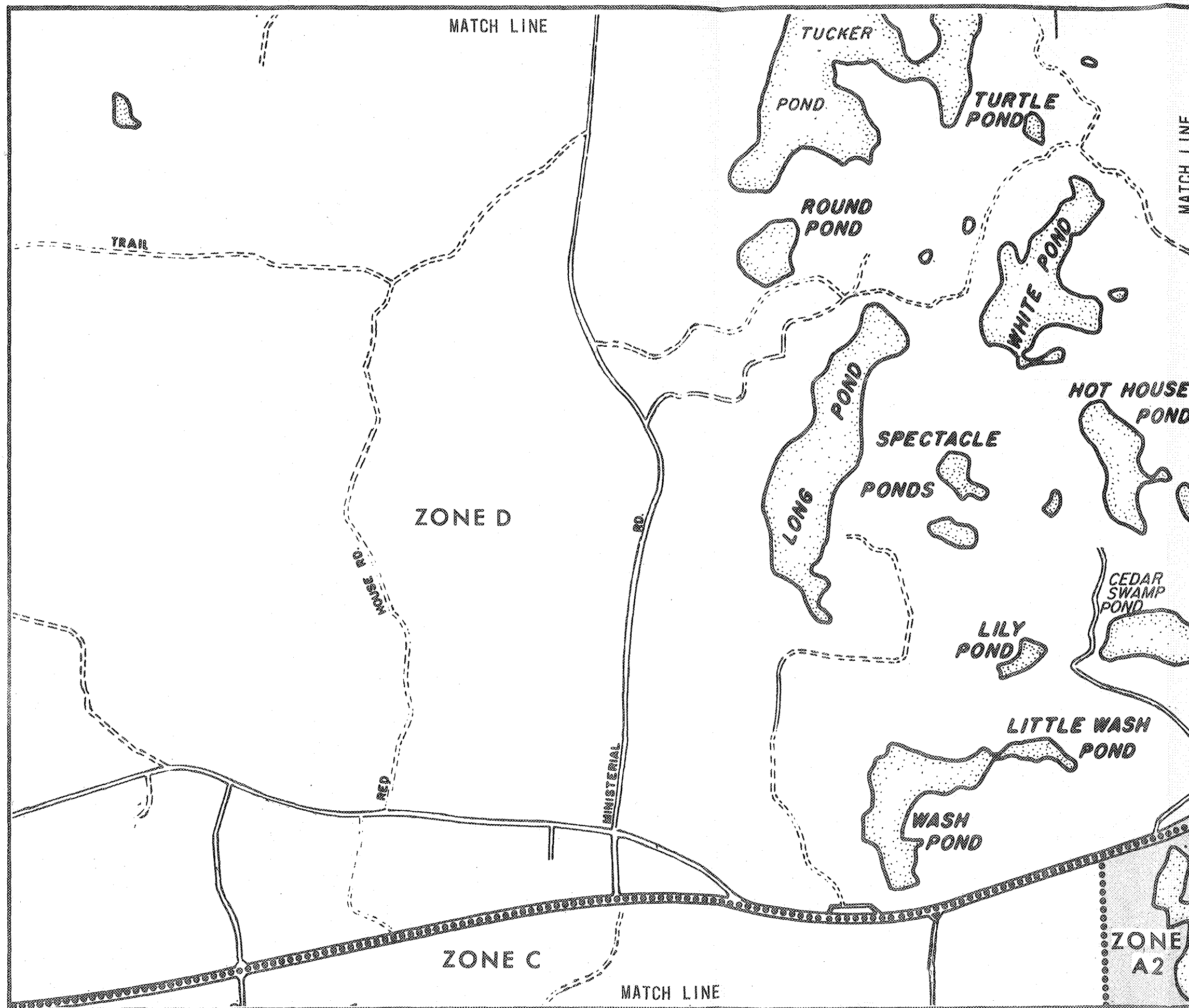


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FLOOD INSURANCE STUDY
 SOUTH KINGSTOWN, R.I.

ZONE MAP

PREPARED FOR
 FEDERAL INSURANCE ADMINISTRATION
 MARCH 1972



MAP INDEX

			17
		15	16
		13	14
	11	12	
8	9	10	

NOTES

- BASE FLOOD ELEVATION**

Zone	Feet (MSL)
A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7

- Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET

1000' 0 1000' 2000'

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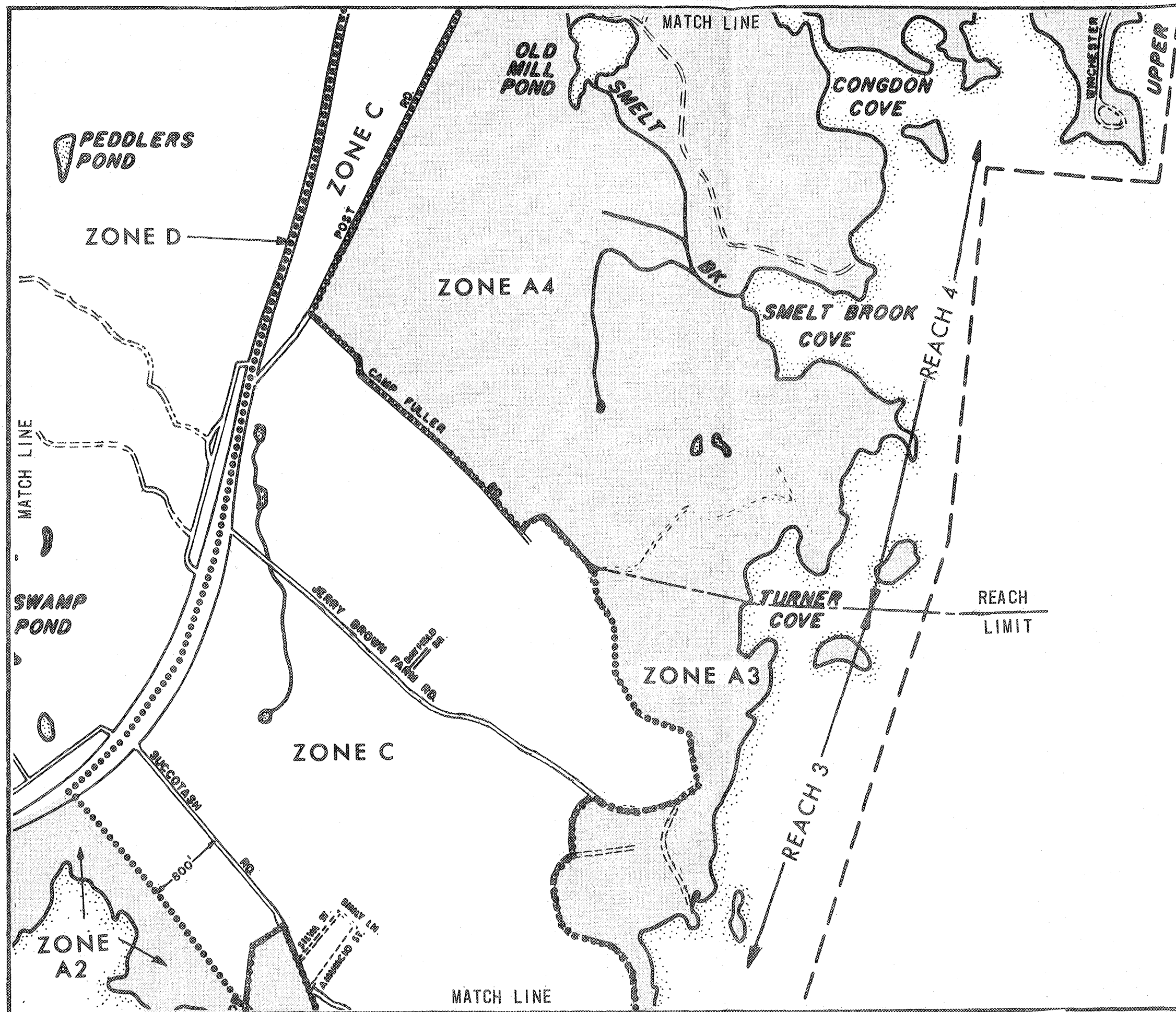
FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, R.I.

ZONE MAP

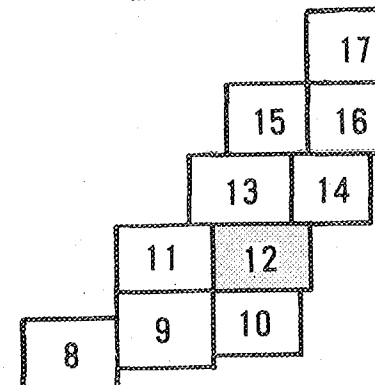
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PLATE 11



MAP INDEX



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7

2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET



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SOUTH KINGSTOWN, R.I.

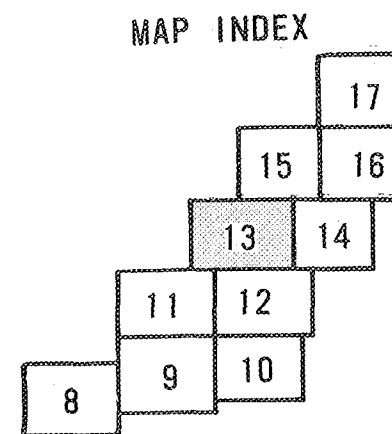
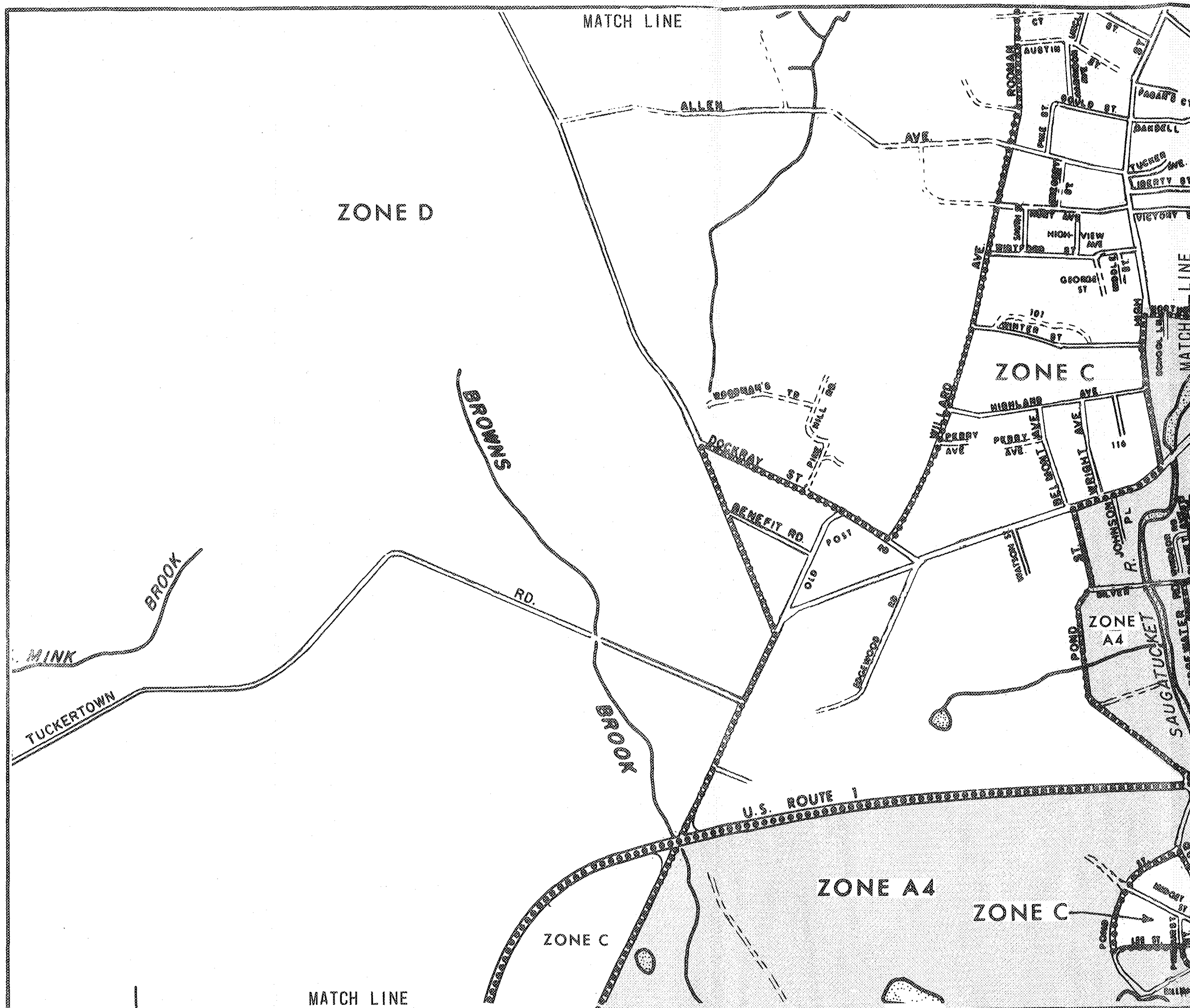
ZONE MAP

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MARCH 1972

REVISED MARCH 1972

PLATE 12



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7

2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET



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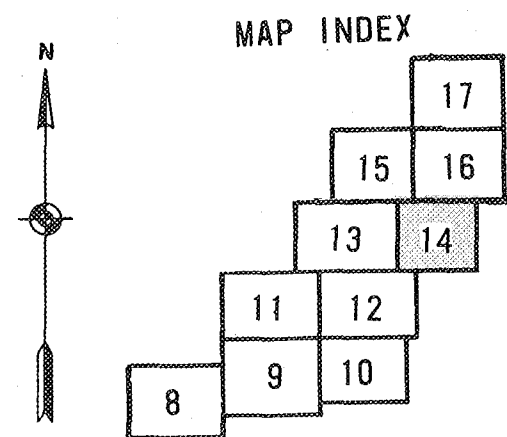
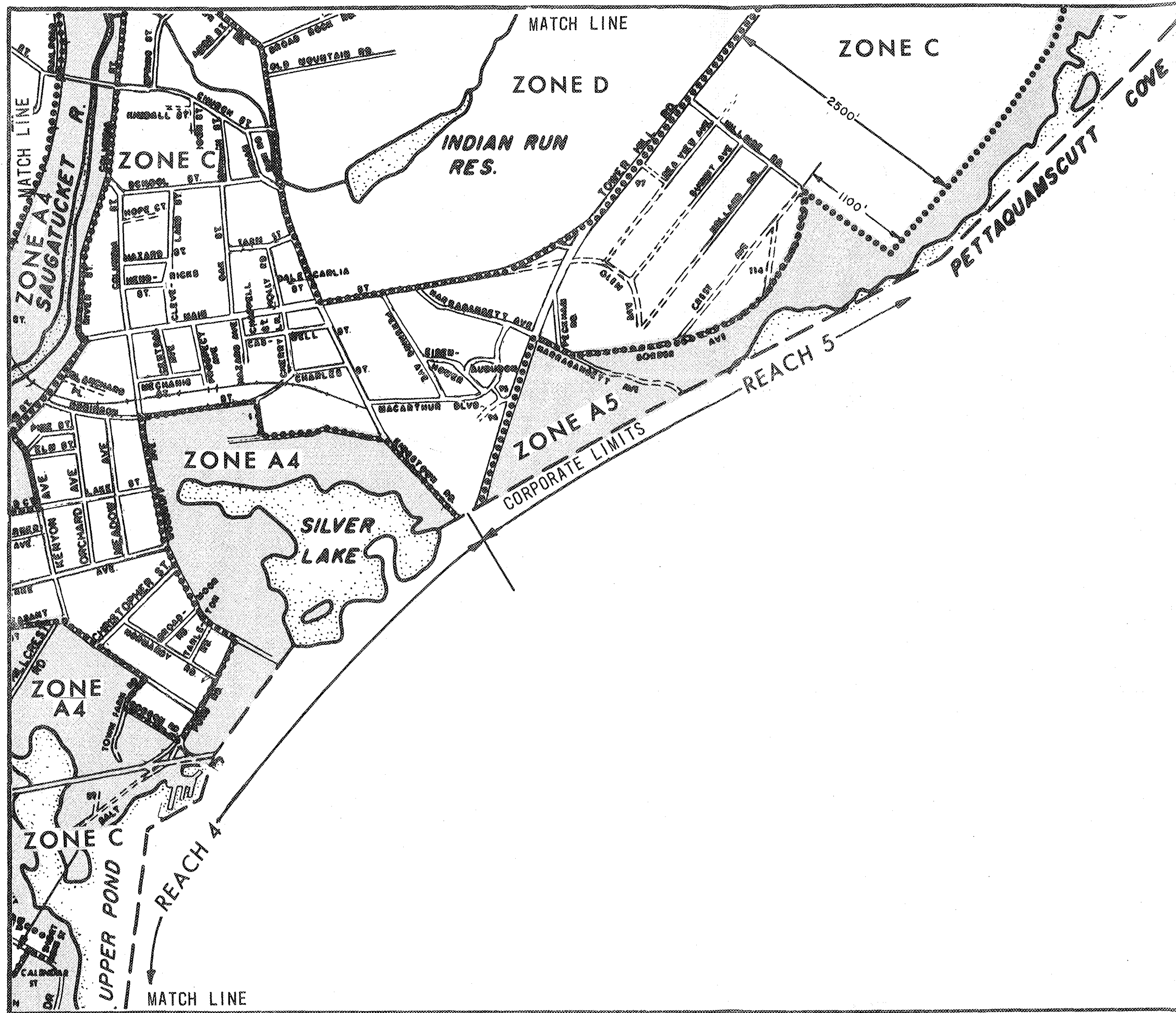
FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, R.I.

ZONE MAP

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MARCH 1972

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PLATE 13



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
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A3	9.9
A4	11.5
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2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET



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FLOOD INSURANCE STUDY

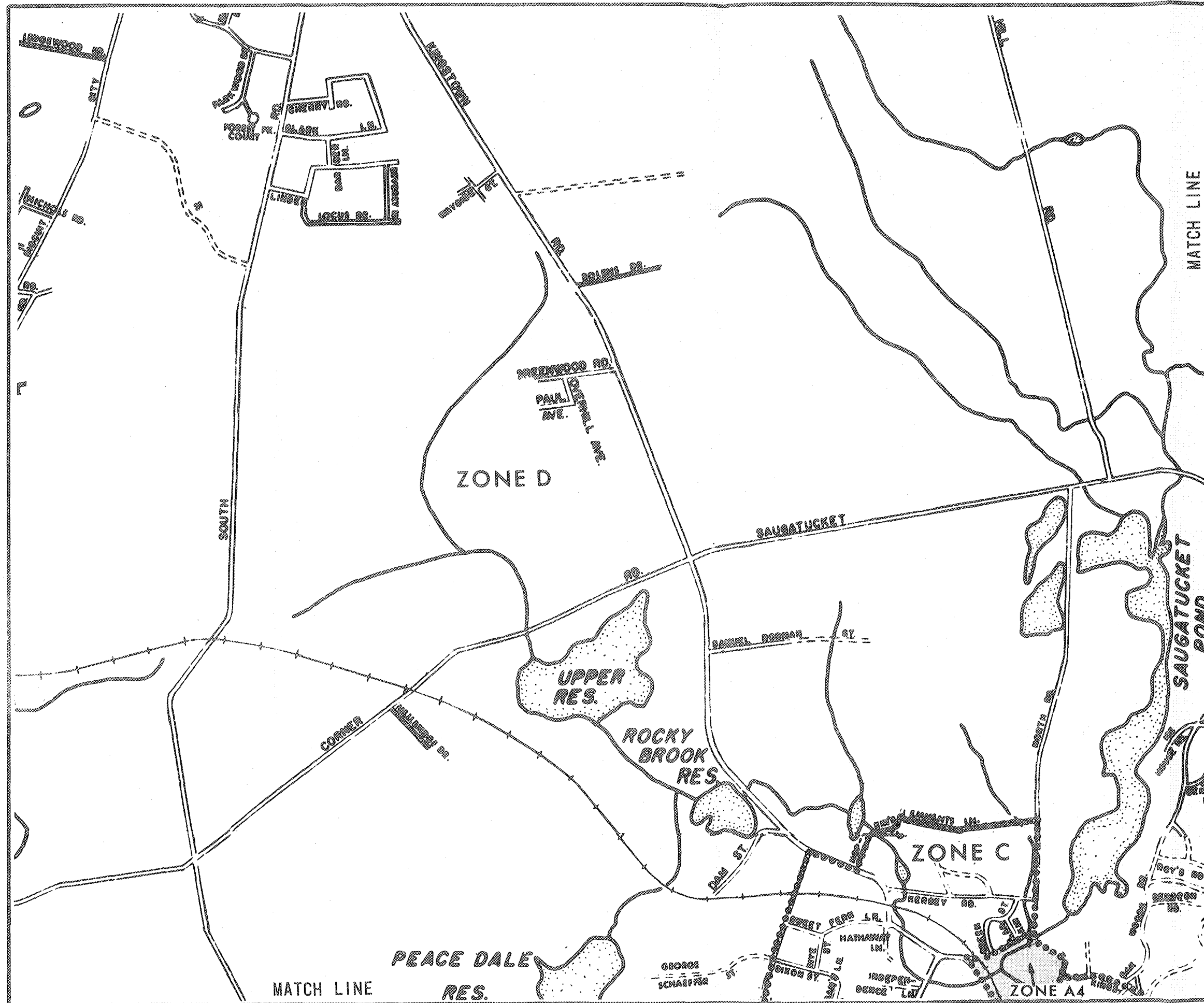
SOUTH KINGSTOWN, R.I.

ZONE MAP

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MARCH 1972

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PLATE 14



MAP INDEX

NOTES

1. **BASE FLOOD ELEVATION**

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A1	12.6
A2	12.0
A3	9.9
A4	11.5
A5	13.7

2. Base map furnished by Town of South Kingstown, minor adjustments by Corps of Engineers

SCALE IN FEET

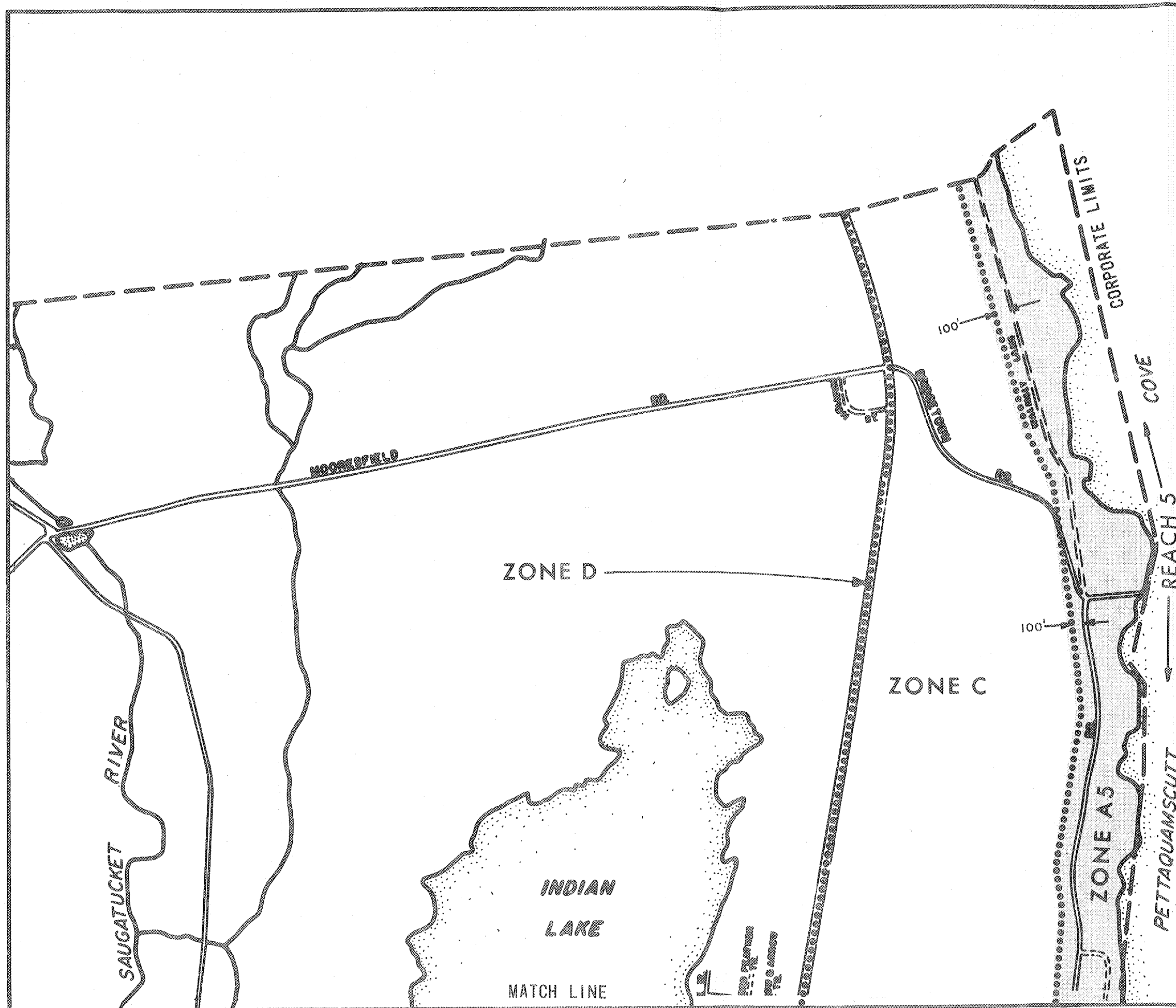
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FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, R.I.

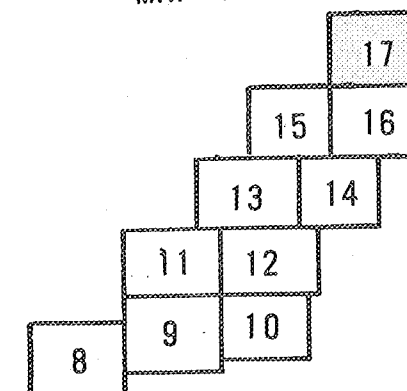
ZONE MAP

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REVISED MARCH 1972 PLATE 15



MAP INDEX



NOTES

1. BASE FLOOD ELEVATION

Zone	Feet (MSL)
A1	12.6
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A5	13.7

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SCALE IN FEET



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FLOOD INSURANCE STUDY
SOUTH KINGSTOWN, R.I.

ZONE MAP

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MARCH 1972

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PLATE 17